

EUROPEAN COMMISSION

Brussels, 20.10.2011
SEC(2011) 1153 final/2

CORRIGENDUM:

Annule et remplace le document SEC(2011) 1153 final du 12 octobre 2011
Langue unique EN (page de couverture)

COMMISSION STAFF WORKING PAPER

IMPACT ASSESSMENT

Common Agricultural Policy towards 2020

ANNEX 2

{COM(2011) 625 final}
{COM(2011) 626 final}
{COM(2011) 627 final}
{COM(2011) 628 final}
{COM(2011) 629 final}
{SEC(2011) 1154 final}

Annex 2: Greening the CAP

TABLE OF CONTENTS

1. THE OBJECTIVE OF FURTHER GREENING IN THE LIGHT OF CURRENT TRENDS	4
2. DESCRIPTION OF A GREENING COMPONENT OF DIRECT PAYMENTS	7
2.1. The greening component within the direct payments model.....	7
2.2. Choice of greening measures and discretion for Member States	8
2.3. Main elements of each of the measures considered	9
2.3.1. Permanent grassland.....	9
2.3.2. Crop rotation / diversification	10
2.3.3. Ecological set aside / ecological focus areas.....	10
2.3.4. Green cover	11
2.3.5. Natura 2000	12
2.3.6. Organic farming.....	13
2.4. Alternatives to a greening component of direct payments	13
2.4.1. First alternative: enhanced cross compliance.....	13
2.4.2. Second alternative: more funding for rural development.....	13
3. IMPACT OF THE GREENING COMPONENT OF DIRECT PAYMENTS.....	14
3.1. General considerations on impact	14
3.1.1. Costs and benefits.....	14
3.1.2. Relation with cross compliance and rural development.....	16
3.1.3. Administration and controls	16
3.1.4. WTO classification.....	17
3.2. Impact on farm income modelled using FADN data.....	18
3.2.1. Options	18
3.2.2. Cost calculation method	18
3.2.3. Results	19
4. GREENING OF THE CAP AS A WHOLE.....	22
4.1. Further greening of the CAP	22
4.1.1. Further greening of Pillar I: cross compliance	22
4.1.2. Further greening of Pillar II.....	22
4.2. Impact of the alternative policy options	23
4.2.1. Adjustment scenario	23

4.2.2.	Integration scenario	23
4.2.3.	Refocus scenario.....	24
4.3.	HNV farming and the CAP post 2013.....	25
5.	CONCLUSION	26

Annex 2a: Factsheets on the environment

Annex 2b: Climate change impact of different greening measures

Annex 2c: Rural development premia and other information on costs

Annex 2d: Greening - Results of partial analysis on impact on farm income using FADN

Annex 2e: Annex on cross compliance

This annex complements Annexes 3 and 4 on direct payments and rural development and looks in particular at the impact of greening direct payments that is part of the Integration scenario.

The proposal of the Commission for the Multiannual Financial Framework for the period 2014-2020 of 29 June 2011 (the MFF proposal) that sets the budget and main orientations for the CAP now makes 30% of direct payments conditional on 'greening' with a view to shifting the agricultural sector in a more sustainable direction.¹

1. THE OBJECTIVE OF FURTHER GREENING IN THE LIGHT OF CURRENT TRENDS

Agriculture and forestry covering 47% and 37% of the EU territory respectively have an important role to play in delivering environmental public goods and addressing climate change, mainly through sustainable land management. The CAP has evolved throughout the years to increasingly recognize and support agriculture and forestry in this role, while mitigating adverse effects from agriculture polluting the soil, water and air, emitting greenhouse gases and threatening habitats and wildlife. In this respect, both the intensification of production and abandonment of traditional land management practices present a threat to ecosystems.

The CAP today supports the sustainable management of natural resources by means of a combination of instruments. Farmers and other land managers are encouraged to protect the environment and fight climate change by direct payments that are decoupled from production and linked to environmental requirements via cross compliance, as well as by more targeted measures under rural development programmes, notably agri-environment measures. Still, the role of the CAP goes beyond the impact of specific measures and needs to be seen in the broader terms of maintaining a sustainable agriculture embedded in vibrant rural communities throughout the EU territory.²

Annex 2a provides an overview of the current situation of ecosystems and the role of agriculture and the CAP in the EU.³ Emissions of nitrous oxide and methane from agriculture have been decreasing faster than in other sectors, while carbon dioxide emissions from cropland and the cultivation of peatlands have continued. Agriculture and forestry have been making an important contribution to the production of renewable resources. Natura 2000 sites cover over 10% of total agricultural area; still, 40-85% of habitats and 40-70% of species of European interest have an unfavourable conservation status. Although the concentration of nitrates in surface and ground water has decreased

¹ Communication from the Commission to the European Parliament, the Council, the Economic and Social Committee and the Committee of the Regions *A budget for Europe 2020*, 29.6.2011, COM(2011) 500 final

² On the role of direct payments and rural development in the delivery of environmental public goods see *APP Briefs no 2 and 4*, the *Study on the Provision of Public Goods through agriculture in the European Union (2009)*, the final report of the Thematic Working Group 3 of the ENRD *Public goods and public intervention in agriculture*, the studies *Reflecting environmental land use needs into EU policy: Preserving and enhancing the environmental benefits of "Land Services": Soil sealing, biodiversity corridors, intensification /marginalisation of land use and the permanent grassland (2009)* and *Reflecting environmental land use needs into EU policy: preserving and enhancing the environmental benefits of unfarmed features on EU farmland (2008)*, and the *CLIMSOIL* study (2008).

³ See also Annex 1 on the *Situation and prospects for EU agriculture and rural areas*.

in most Member States, significant pressures on water quality (notably nitrates, particularly in intensive livestock areas, and plant protection products) and quantity remain with 24% of water abstraction used for agriculture (rising to 80% in some Member States with serious water shortage problems). Phosphorus loads to waters originating from agriculture appears to be a key constraint to reach good ecological status of waters across the EU. This means that further targeted action will be required in intensive agricultural areas to meet targets under the Water Framework Directive⁴ and the Nitrates Directive.⁵ Most importantly, soil erosion remains a very serious problem throughout Europe, while an estimated 45% of soils have low organic matter.

All in all, despite significant efforts the results to date in terms of preventing further degradation of ecosystems are mixed. This means that more efforts will no doubt be required, also to meet the ambitious EU climate and energy and biodiversity targets that are part of the Europe 2020 strategy (in particular, for a Resource Efficient Europe). Hence sustainable management of natural resources and climate action are among the main objectives of the future CAP that also strongly relies on maintaining a sustainable agriculture and a balanced territorial development throughout the EU.

In particular, the future CAP should be geared in order to contribute significantly to meeting the ambitious EU biodiversity headline target for 2020. In this respect the EU biodiversity strategy to 2020⁶ includes the following target for agriculture: *Maximising areas under agriculture across grasslands, arable land and permanent crops that are covered by biodiversity-related measures under the CAP so as to ensure the conservation of biodiversity and to bring about a measurable improvement in the conservation status of species and habitats that depend on or are affected by agriculture and in the provision of ecosystem services as compared to the EU 2010 Baseline, thus contributing to enhance sustainable management*".

The need to further green the CAP is addressed in different ways in the alternative policy options that are the subject of the current impact assessment. The table below highlights the elements directly aimed at enhancing the environmental performance of the CAP in the options under consideration, although other elements such as the distribution of support may also have important environmental consequences (see Annex 3 on direct payments):

Policy option	Greening element
Adjustment	Enhanced cross compliance Moderate increase in Pillar II budget with the additional resources available for the same 'new challenges' as in the Health Check (climate change, water, biodiversity, renewable energy and innovation)
Integration	Greening component of direct payments including a specific top-up for Natura 2000

⁴ Directive 2000/60/EC

⁵ Directive 91/676/EEC

⁶ COM(2011)244 final

	Enhanced cross compliance Reinforced strategic targeting in Pillar II, with the environment and climate change as guiding considerations
Refocus	Doubling of 2 nd pillar budget with all budgetary resources available for the environment and climate change

In relation to the different instruments, the following elements are worth noting:

- a greening component of direct payments under the Integration scenario to support, across the whole of the EU territory, simple, generalized, non-contractual, annual environmental measures that go beyond cross compliance;
- enhanced cross compliance under the Adjustment and the Integration scenario, including improvements in the GAEC to better address climate change as well as the inclusion of the Water Framework Directive once implemented; and
- a stronger rural development policy, that benefits from additional funding under the Adjustment and Refocus scenario, as well as reinforced strategic targeting in the Integration scenario.

In all cases, such further greening of the CAP will need to respond to the rising environmental and climate change challenges and the growing expectations that EU citizens have from the CAP in terms of environmental performance and landscape amenities.⁷ At the same time, this should neither put under threat the viability of the farming sector nor unduly complicate the management of the policy.

These considerations are echoed in the results of the public consultation where the majority of respondents identified climate change, biodiversity, soil protection, landscape and water as the main environmental challenges, and strongly supported rural development measures. In relation to the greening of direct payments, environmental organizations and think-tanks broadly supported the orientations in the Communication, with organizations from the farming and processing sectors expressing concerns about the effect on the competitiveness of EU agriculture.

⁷ *The value of EU agricultural landscape* (JRC IPTS draft March 2011 - work in progress) estimates that society's willingness to pay for landscape varies between EUR 89-169/ha with an average value of EUR 142/ha in 2009. The average for grassland and permanent crops is EUR 189/ha and for arable land EUR 113/ha. The total value of EU landscape in 2009 is estimated to be between EUR 16.1-30.8 billion per year (with an average of EUR 25.8 billion, representing around 7.5% of the total value of EU agricultural production and roughly half of CAP expenditure).

2. DESCRIPTION OF A GREENING COMPONENT OF DIRECT PAYMENTS

2.1. The greening component within the direct payments model

The greening component of direct payments would operate as follows:

- each farmer will be required to undertake a number of environmental actions, such as maintenance of permanent grassland, use of green cover, crop rotation and ecological set aside as applicable; some apply to all agricultural areas, while others apply only to grassland, arable land or permanent crops;
- these measures will cover the whole EU territory, will be defined as uniformly as possible, and all farmers in a region will get the same payment per ha (corresponding to the share of direct payments allocated to greening);
- to retain the WTO Green Box classification of Pillar I payments, the greening component will need to be a decoupled payment applying to all farmers in a specific area (MS or region); in this respect, care must be exercised in rewarding specific types of production, and certainly not production *per se*.

The degree of ambition for the greening depends on the actual content of the measures. These need to be defined in such a way that they bring important benefits without threatening the viability of the farming sector and without unduly complicating the management of the system, i.e. to strike the right balance between pushing farmers to adopt more environmentally friendly practices for which they may not be fully compensated and still ensuring that these are framed as incentives (that is a combination of "carrot" and "stick" approach). The lower the overall direct payment budget, the less persuasive can such an approach be; ultimately, if the cost is too high compared to the payment, farmers may choose in certain cases to forego direct payments altogether and the intended environmental benefits are lost.

As regards the level of payment, the greening component will be financed through a share of the budget for direct payments, and since the level of the basic payment may differ among and within Member States, the level of payment for the greening component may also differ from one region to another. To keep the system as simple as possible, it is nonetheless envisaged to set payment levels for the greening component as a whole (not per measure) that will be the same for all farmers in a given region.

However, it may be envisaged for the payment for Natura 2000 to be a separate additional payment. Including Natura 2000 as part of the greening is a clear sign of commitment of the CAP to contribute to the preservation of habitats and species in the EU.

The end result would be more sustainable land management with farmers better incorporating the long term benefits for the environment as well as their own competitiveness in their decision making. Those farmers that already manage their land in a sustainable manner will be rewarded compared to those for which the introduction of the relevant measures could potentially entail significant costs; they would also be dissuaded from moving or reverting to more harmful practices.

2.2. Choice of greening measures and discretion for Member States

In selecting the measures for the greening component consideration is needed to strike the right balance between what is best achieved by broad-brush effective and easy to control annual requirements in Pillar I and the more targeted, multi-annual and locally tailored approach of rural development. The greening should strengthen in a sound manner the baseline for more targeted voluntary measures under rural development.

The measures under consideration for the greening component include:

- **maintenance of permanent grassland**, which concerns permanent grassland,
- **crop rotation/diversification**, which concerns arable land and open air horticulture,
- **ecological set aside/ecological focus areas** and **green cover**, which are potentially applicable on arable land and open air horticulture as well as on permanent crops, and
- support to all designated agricultural **Natura 2000** areas.

In mixed farms e.g. arable/permanent grassland, the arable part would need to comply with crop rotation, green cover and ecological set aside while the permanent grassland measure would apply to the permanent grassland part.

In addition, although **organic farming** would not qualify as a measure because the relevant commitments are multi-annual, complex, undertaken on a voluntary basis and subject to detailed controls, it may be envisaged that farms (or part thereof) with organic farming certification (around 7.6 million ha, of which half is permanent grassland) receive automatically the greening component since the environmental benefits (and in most cases climate action) from organic farming are at least as high as from the greening measures combined. This should not nonetheless result in reduced support to organic farming under rural development policy, notably agri-environment measures.

The following measures were considered but finally not taken up:

- specific support to HNV farming, given that currently available data and methods would not allow identification of individual farms or parcels with the requisite certainty for a Pillar I measure; Rural development policy is more suited to support HNV farming taking account of specific needs. However, greening should in any case have a positive impact on HNV farming (see section 4.3).
- improved nutrient balance, given the associated costs and more detailed controls that would be required (and given that the measure would vary considerably depending on soil and water quality). Rural development policy also appears better suited to support this type of measure.

Although some discretion left to Member States on further specifying measures may be justified to take into account regional specificities in the design of 'green' payments (although clearly these cannot be as well targeted as Pillar II measures), it will be essential to provide for uniform application within and across Member States thus ensuring equal treatment for all farmers and a strong impact on the environment and climate change.

For the greening to be effective, it is key not to go for a 'menu' approach with a list of measures, offering choice to Member States and/or farmers. Such an approach would very much water down the greening effect, especially if the payment does not match the efforts required by farmers, leading them to choose the measures with which they comply already or the measures with the least cost, thus bringing less environmental benefits. In addition, the more choice offered in Pillar I greening, the more complicated it becomes to ensure coherence with the cross compliance especially GAEC (risk for having too various baselines between Member States) and subsequently with Pillar II: risk for having double payments. Therefore, an approach to greening with only a few measures which yield significant environmental benefits is to be favoured.

2.3. Main elements of each of the measures considered

2.3.1. Permanent grassland

Permanent grassland is grassland that has not been in rotation for at least 5 years, irrespective of its biodiversity value.

Current baseline

- At present there is an **obligation to maintain the ratio of permanent pasture** at Member State/regional level under Article 6(2) of Regulation (EC) No 73/2009, to take corrective measures if the decrease is more than 5%, and to ensure this does not decrease more than 10% (safety net system). Beyond a decrease of 10%, there is an obligation at farm level to re-convert land into land under permanent pasture in order to re-establish the balance.
- **Protection of permanent pasture** is a compulsory GAEC on minimum maintenance at parcel level that has been implemented by Member States by introducing minimum frequency and periods for grazing, mowing and/or minimum livestock, removal of unwanted shrubs/plants, and a ban of ploughing up and protection of specific types of valuable pastures.

Rural development

Similar measures (including extensive grassland, conversion of arable to grassland) are present in 62 RDPs in 23 Member States, with premiums ranging from EUR 50-75 through EUR 130-270 up to EUR 400-500.

- Example (Germany): extensive pasture with premium EUR 110/ha; cannot exceed 1.4 LU/ha; no irrigation; no application of plant protection products (PPPs); minimum 0.3 LU/ha on the main forage area.

Proposed measure:

Obligation to maintain permanent grassland at farm level

The proposed measure would ensure that grassland does not move around (resulting in high GHG emissions and nutrient release), but could significantly constrain any change in land use patterns on the farm and may thus have consequences on the land market. For this reason, a similar margin for decrease at farm level as currently available under Article 6(2) at Member State / regional level should be foreseen. This would imply an

individual monitoring of the permanent pasture parcels at the farm level, which could render redundant the national ratio under Article 6(2).

The GAEC on protection of permanent pasture would be specified to better target highly biodiverse grassland, and 2 new GAEC standards to protect more specific land uses (wetland, and carbon rich soils) would be introduced. More ambitious agri-environment measures in the form of multi-annual commitments would remain available.

2.3.2. Crop rotation / diversification

Crop rotation is the planned and ordered succession of different crops on the same field (usually lasting 3-5 years). As a general matter, crop rotation needs to be tailored to local conditions (soil, crops, climate, market outlets) and farming systems; it is therefore difficult to come up with an EU wide definition that is sufficiently specific. Typical rotations are usually associated with types of farming systems (e.g. livestock farming systems depend on the use of land for grazing and forage crops).

Current baseline

Experience with **Standards for crop rotation** (previously compulsory but now optional GAEC on soil organic matter) showed the reluctance of many Member States to define standards which would affect income and the 'freedom to farm'. In addition control issues played a role.

Rural development

Crop rotation (including crop diversification, sequence and break crops) is present in 20 RDPs in 9 Member States with premiums from EUR 20-30 to EUR 300.

- Example (Slovenia): 5 year crop rotation for entire arable land with at least 3 different crops, cereals less than 60%, legumes present at least once.

Proposed measure

[3] crops with the main crop not exceeding [70%] of arable and open air horticulture area and the [third] not less than [5%] (crop diversification)

Crop diversification may not bring the full environmental benefits of crop rotation, but is better suited for Pillar I as an annual measure. No specific crops should be required or excluded as part of the crop rotation to ensure WTO compatibility, even if requiring e.g. leguminous crops could enhance the climate and environmental benefits of the measure. It should be possible to exempt very small parcels of arable land from this requirement.

The current GAEC on crop rotation would be removed. More ambitious crop rotation measures could still be funded under rural development.

2.3.3. Ecological set aside / ecological focus areas

Ecological set aside is land left fallow (not in production) for environmental purposes.

Current baseline

- Retention of landscape features, including, where appropriate, hedges, ponds, ditches, trees in line, in group or isolated and field margins (compulsory GAEC on minimum level of maintenance) may involve withdrawing areas from cultivation that are next to the features.
- **Retain terraces** (optional GAEC on soil erosion)
- **Establishment of buffer strips along water courses** (compulsory GAEC as from 2012) is not yet implemented in most MS.
- Buffer strips or other features pursuant to the Nitrates Directive, the Pesticides Directive and Regulation and Natura 2000 Directives.

Rural development

Similar measures are present in 23 RDPs in 11 Member States, with premiums ranging from EUR 60 through EUR 300 to EUR 600 in a few cases.

- Example (Hungary): no arable crop production near sensitive and endangered water supplies and areas threatened by erosion or flood for 10 years; premium EUR 180-390/ha.

Proposed measure

[5%] of land set aside / ecological focus area at farm level (arable, open air horticulture and permanent crops)

In the case of permanent crops, ecological focus areas may take the form of buffer or grass strips. Areas that are already set aside under cross compliance (e.g. buffer strips as well as landscape features) would count towards the requirement, provided their quantification does not prove to be unduly burdensome. Finally, it should be possible to exempt very small parcels of arable land or permanent crops from this requirement.

Even if the benefits of set aside may vary depending on whether the area set aside can move around the farm and on where it is located, it would be very difficult to manage a measure with specific requirements on location of the area set aside. Rural development can however build on this baseline requirement and further support green infrastructure to enhance connectivity.

2.3.4. Green cover

Green cover is the temporary plant cover of land that would otherwise remain bare at certain times in the year.

Current baseline

- A minimum quantity of vegetation cover during rainy periods may be required under the **Nitrates Directive (SMR 4)**. Some 16 MS have implemented such obligations.
- **Minimum soil cover** and **Minimum land management reflecting site specific conditions** are compulsory GAECs for soil erosion. The implementation is primarily

focused on erosion vulnerable zones. Only 5 Member States have defined standards for land that is not in production.

Rural development

Voluntary measures including winter cover are present in 54 RDPs in 16 Member States with premiums ranging from EUR 45-50 through EUR 150-400 and in exceptional cases EUR 800-900.

- Example (Romania): 80% of arable land; premium EUR 130/ha; cover crops must be planted by end September and incorporated into the soil by end March; only organic fertilizer can be used; annual rotation of areas under green cover allowed.

Proposed measure

[70%] of land at farm level (arable, open air horticulture and permanent crops) covered from [15 November] to [15 February]

Green cover may be particularly difficult to manage and control. To facilitate to the extent possible management and control, the measure should set out clear obligations for farmers, preferably controllable by remote sensing; thus a period needs to be specified. To maximize environmental benefits, the winter cover should be seeded as soon as possible after harvesting the preceding crop. In addition, an exception for mulching for permanent crops as well as for winter stubbles for arable land on biodiversity grounds may be provided.

On this basis the GAEC standard on minimum soil cover could be dropped. More demanding measures in Pillar II with respect to green cover would still be possible.

2.3.5. Natura 2000

The Natura 2000 network, i.e. the EU wide network of Special Areas of Conservation under the Habitats Directive and Special Protection Areas under the Birds Directive, is the centrepiece of EU nature and biodiversity policy. The Natura 2000 is not a network of strictly protected areas but areas providing space for species and habitats of Community importance. They are often privately owned and production activities can continue. A significant proportion of semi-natural habitats and of species protected under the Birds and Habitats Directives rely on the continuation of certain traditional biodiversity-friendly methods of land management. The overall objective of the Habitats Directive is to achieve favourable conservation status of species and habitats.

Farmers in Natura 2000 areas should manage their land in accordance with the EU legislation, which entails no deterioration of species and habitats of Community importance. They may thus very often face substantial constraints on what they may do on their farm. For example, there are strict limits on how much they may intensify their production systems, and this puts limits on their competitiveness.

The environmental benefits and conditions imposed on farmers in Natura 2000 areas across the EU differ considerably and depend heavily on the existence and content of site-specific conservation measures.

Currently there is relatively little specific support going to Natura 2000 areas, despite the possibilities offered under rural development.

Current baseline

SMR 1 (Birds Directive) and 5 (Habitats Directive)

Rural development

Article 38 of Regulation 1698/2005 allows for compensation for the disadvantages for farmers in Natura 2000 areas.

Proposed measure

Farmers in all designated Natura 2000 areas get an additional payment.

The payment would contribute to keeping farming in place in Natura 2000 areas and help compensate for the basic restrictions under the legislation and would apply even before site-specific conservation measures are established. It would be designed to cover the basic non-deterioration requirements, but for more demanding land management requirements, rural development payments would continue to be used.

2.3.6. Organic farming

Farms (or parts thereof) with organic certification get automatically the green direct payment.

2.4. Alternatives to a greening component of direct payments

While the objective of greening the CAP seems uncontested, there are different opinions as to how this objective may best be pursued, including suggestions that it may be more appropriate instead of a greening component of direct payments either to enhance cross compliance or to provide more funding for rural development.

2.4.1. First alternative: enhanced cross compliance

To make the greening effective, the measures in the greening component should be compulsory for the farmer, the discretion left to the Member State limited, and sanctions effective. If greening is effectively a requirement in the direct payments system, then wouldn't it be simpler to work instead on enhancing cross compliance?

Although this line of reasoning is put forth arguably on simplification grounds, it hides the complexities inherent in Member States defining and administering GAEC tailored to regional specificities. As the experience with the optional GAEC on crop rotation has shown, this approach would not necessarily ensure that the entire EU territory is effectively greened. At the same time, it would meet with considerable resistance from farmers as it would be framed as a requirement rather than an incentive, and arguably do away with the political visibility of greening direct payments that is one of the main drivers of this reform.

2.4.2. Second alternative: more funding for rural development

Seen from the perspective of providing choice for the farmers, it would seem preferable to envisage measures with payment levels differentiated by measures according to cost incurred and income forgone, as well as to give more discretion to Member States for their design so as to tailor them as much as possible to specific situations. Wouldn't it

thus be simpler to use part of Pillar I funding for complying with environmental measures within rural development policy instead?

The problem with this approach is that it would give too much discretion to Member States and farmers, and, even in a best case scenario, would not link the greening requirements to Pillar I payments and would not cover the entire EU territory; this is clearly seen when one compares existing premia under agri-environment today with the future payment levels for the greening component as well as considers the varied uptake of agri-environment across Member States. This would be particularly detrimental for climate change objectives as it leaves the possibility for only a part of the farm to adopt climate friendly practices while the rest of the farm continues to be operated with potentially detrimental methods undermining the global result.

In sum, the greening component of direct payments makes the greening of the CAP more visible and has the merits of broad territorial coverage and uniform application; however, it does not allow for targeting the measures to specific situations (and would thus need to be complemented by better targeted rural development measures), and most importantly it will need to be required rather than offered a pure an incentive for the greening to be effective and credible.

3. IMPACT OF THE GREENING COMPONENT OF DIRECT PAYMENTS

3.1. General considerations on impact

3.1.1. Costs and benefits

As a general matter, the impact of the greening component will depend to a large extent on the definition of each measure reflecting the corresponding tradeoffs, e.g. between simplification, effectiveness, equity and targeting.

The measures under consideration bring considerable environmental benefits, while the efforts that may be required on the part of farmers and thus costs incurred vary. In general terms, the costs and benefits may be summarized as follows (see also **Annex 2b** for a detailed analysis of the measures, in particular from the perspective of their impact on greenhouse gas emissions and removals):

Permanent grassland

- Benefits for climate change mitigation (maintenance and protection of carbon pools esp. peatlands) and adaptation, biodiversity, soil, water management, flood prevention and landscape amenities
- Opportunity cost of not converting into arable land may be high, given the increased demand for arable land that can be put to a more profitable use; hence the need to support on environmental grounds grassland-based livestock
- Relatively low cost of maintenance (mowing, grazing, avoiding undesirable shrubs and bushes)
- To note that there are important differences in the amount of permanent grassland in the different Member States.

Crop rotation/diversification

- Benefits for soil organic matter (climate change) and structure; reduction of soil erosion and nutrient leaching; nutrients management and input reduction (nutrients and plant protection products); pest and weed control; water quality and quantity; climate change mitigation and adaptation; improved habitats and landscape diversity
- Significant short term costs to put in place (may require new equipment and skills, different marketing outlets); income foregone for the main crop, esp. in case of monoculture; short-term impact on yields clearly negative in intensive farming
- Long-term benefits (improved yields and profitability over time, pest and disease control, less need for chemical inputs) require clear quantitative assessment, in addition to qualitative assessment – "fallacy of composition" risk (what is good in smaller scale could be bad in larger scale if global price impact too strong)

Ecological set aside / ecological focus areas

- Benefits for biodiversity; soil and water quality; climate change mitigation and adaptation; pest control; landscapes; pollination
- Impacts vary depending on whether set aside is rotational, on how land is maintained and on its location (e.g. buffer strips along water courses, or joined up with other farms to form a connected network)
- Opportunity cost of no production (income foregone, to be balanced with possible increase in prices)

Green cover

- Benefits for water quality (esp. reduction of nitrate leaching); soil quality, moisture and reduction of erosion; climate change mitigation (increase in soil organic matter and reduction in chemical fertilizers) and adaptation; flood prevention
- Cost of seeds, machinery, energy and labor for sowing in autumn and mechanical destruction and ploughing in spring; in the case of winter stubble, income foregone (no selling or grazing of the straw); possible cost savings on fertilizer and impact on yields for the next crop
- To note that in Nitrate vulnerable zones, green cover may already be compulsory.

Natura 2000

- Benefits for biodiversity, water quality and climate change mitigation, that largely depend on conservation measures put in place in each Member State
- Explicit recognition of role of farmers in N2000 areas
- No additional cost given that relevant requirements are already mandatory

Annex 2c includes the ranges of rural development premia and examples of calculations as well as other sources of information on costs that were the basis for the cost assumptions used in the modelling exercise in section 3.2. below.

3.1.2. Relation with cross compliance and rural development

Being positioned between cross compliance requirements and the voluntary measures under rural development, the measures of the greening component should effectively go beyond cross compliance standards. This may allow for some streamlining of GAEC to exclude the parallel application of similar conditions within the green elements of direct payments and within GAEC, for instance by doing away with the optional GAEC on crop rotation.

With respect to the green cover measure there is however an overlap with SMR4. Some 16 Member States have implemented varying obligations for green cover to achieve the objectives of the Nitrates Directive (e.g. in the case of Ireland and Wallonia these are general obligations applying throughout the territory).

There are many cases where rural development measures add value by being more ambitious or better tailored to the local situation, by being part of a package of measures, or by encouraging connectivity of environmental features between farms. Therefore, the possibility should be offered to grant support under rural development to measures that go beyond the greening component.

It should be noted that similar measures to those foreseen as part of the greening component represent today a significant share of agri-environment commitments in some programming areas. This is particularly the case in EU12 partly due to lack of experience and capacity to implement more complex measures. However, most new Member States have in the meantime acquired experience, and may be further helped in this process.

Finally, integration into the compulsory scope of the Farm Advisory System (FAS) may be envisaged.

3.1.3. Administration and controls

From a simplification perspective, administration of the greening component should be kept as simple as possible. This is particularly important since the greening component will most likely increase the administrative burden for authorities and farmers in terms of additional controls as well as monitoring and evaluation requirements. See also **Annex 11** on simplification.

To ensure effective greening, an appropriate sanctioning mechanism should be provided. Reductions and exclusions could as is already the case with current rules for area-related schemes go from a partial reduction to loss of the greening component as well as exclusion taking into account the severity and extent of the irregularity.

For controls, the current system as regards decoupled payments relies on two layers: 100% IT cross checks (Land Parcel Identification System) and 5% on-the-spot checks. With the introduction of the greening component, the system will rely essentially on on-the-spot checks, thus higher costs for controls. However, where possible, the use of remote sensing for on the spot checks could help keep costs down compared to field visits. In relation to the measures proposed:

Permanent grassland

The additional burden of on-the-spot checks linked to this measure depends on the related requirements. Specific maintenance requirements are more complicated to control than just to verify the existence of grassland, and very difficult to control by remote sensing.

Crop rotation / diversification

The requirement to declare the crop on each parcel is not a legal obligation under the current decoupled system, but many Member States do nevertheless require it from farmers. The on-the-spot checks may be possible by remote sensing. This is however subject to various conditions, e.g. whether crops need to be from different crop families.

Ecological set aside / ecological focus areas

On-the-spot checks may be done by remote sensing to the extent that no verification on input use is required. Declaration and control of very small landscape features for the purpose of the set aside would complicate the administrative burden.

Green cover

The on-the-spot checks would have to be carried out during the winter period. This would be an additional burden that would require a change in existing control procedures. In addition, this may be impracticable in some cases due to weather conditions which do not only affect the possibility of control but also the operation of the measure itself. As a general matter, this is the most complex measure from an administration and control point of view (see also annex 8 on simplification).

Natura 2000

By cross-checking spatial data from the European database on Natura 2000 sites with those on Pillar I beneficiaries, it will be easy to determine eligibility (Member States already have relevant experience with the implementation of the current Natura 2000 payments for farmland in Pillar II). It is possible to combine LPIS and Natura 2000 data together. On the other hand, controls in relation to site-specific conservation measures would be problematic.

3.1.4. WTO classification

To qualify for the Green Box (WTO) the decoupled nature of the greening component must be safeguarded. In this respect, any link to production per se or to types of production, for instance by requiring the presence or absence of certain crops as part of the green cover or crop rotation even if environmentally justified should be avoided.⁸

⁸ It would not be possible to qualify the greening component as an environmental payment, since this would require a costs incurred/income foregone calculation.

3.2. Impact on farm income modelled using FADN data

3.2.1. Options

The impact of the greening component on farm income has been estimated using Farm Accountancy Data Network (FADN) data. **Annex 2d** sets out a detailed explanation of the methodology used and the resulting costs for the measures considered and impact on farm income across Member States and farming systems.

To this end, the following options are compared to a "basis" scenario which does not include a greening component and where direct payment envelopes are distributed among Member States on the basis of the approach set out in the MFF proposal:

- Option 1: 30% of the direct payments envelope is allocated to the greening component; the measures are defined as under section 2.3 above;
- Option 2: same as Option 1, with a more ambitious crop diversification measure (the main crop cannot exceed 50% of the farm arable crop area);
- Option 3: same as Option 1, with a more ambitious ecological set aside measure (10% of the farm area is set aside);
- Option 4: same as Option 1, but a lower percentage (25%) of the direct payments envelope is allocated to greening;
- Option 5: same as Option 1, but the distribution of direct payment envelopes among Member States is based on the '90% of EU average and objective criteria' scenario (see Annex 3).

3.2.2. Cost calculation method

It has not been possible to quantify economic benefits, due to the lack of data on the impact of the agricultural benefit of the measures on yields; moreover, any benefits would have in most cases a medium- to long-term time horizon and would vary significantly across regions and farming systems.

In relation to costs, the following assumptions were made:

- for permanent grassland, it is assumed that the opportunity cost is 2/3 of the difference in gross margin with alternatives at regional level where these exist (assuming that the newly converted grassland would have a lower productivity than land already in fodder crops), otherwise zero;
- for crop diversification, for farms that have a single crop covering more than 70% (or 50% for option 2) of the arable crop area, the cost of cultivating a different crop for the area that still needs to be diversified is based on the difference between the individual farm's gross margin and the average regional gross margin for arable crops in specialized arable farms that already apply crop rotation;
- for ecological set aside, the cost for the area that still needs to be set aside is estimated as 2/3 of the individual farm's average gross margin (assuming that the agronomic quality of the land set aside is below average);

- for green cover, there is no information in the FADN database on existing practices; it was thus assumed that a large part of cereals area as well as 30% of the permanent crops area is already covered, and for the remaining area to be covered the costs were set at EUR 50/ha across the board on the basis of experience from calculations of rural development premia for similar measures;

The resulting average costs per ha of potentially eligible land across the EU27 range from EUR 33 to EUR 41/ha of PEA, depending on the option of greening, with up to half coming from the cost of maintaining permanent grassland (average EUR 17/ha).

These figures are average costs spread out over all potentially eligible ha. The relevant costs for the land affected are considerably higher (it is estimated that 25-30% of the potentially eligible area would see its land use and production methods modified or would face an opportunity cost). For instance, under option 1, the cost of the permanent grassland measure would be EUR 216/ha of permanent grassland where there are alternative opportunities, while the cost of ecological set aside would be EUR 261/ha of land that needs to be set aside. Per farm, average costs range from EUR 1041 to EUR 1280 across the five options.

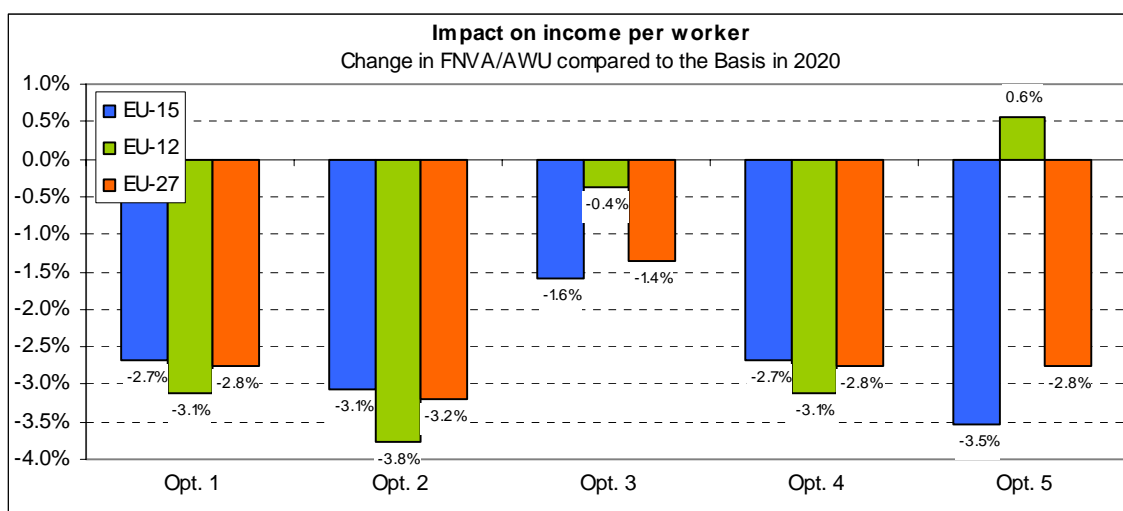
Moreover, these average figures hide wide variations across Member States / regions and farming systems, reflecting differences in land use and profitability as well as in current environmental practices (and hence the area whose land use and production methods would need to be modified).

The Member States that would be facing the highest overall costs are NL, SI, and BE. As a general matter, higher costs are associated with crop diversification in southern Member States, set aside in Member States with high area productivity, for instance due to the importance of horticulture, green cover in some southern Member States or the Baltic countries, or permanent pastures in Member States where milk and beef production are important and based on both intensive and extensive systems (such as SI, NL and BE).

Finally, costs are higher for options 2 and 3. A more ambitious crop diversification under option 2 would bring average cost up from EUR 4 to EUR 9/ha of potentially eligible land. Similarly, a more ambitious ecological set aside under option 3 would bring average cost up from EUR 6 to EUR 14/ha of potentially eligible land.

3.2.3. Results

When estimating the impact on farm income, it is assumed that farmers fully comply with greening and receive their full direct payment amounts; hence, the impact on income is solely driven by the costs of greening. The impact on farm income on average across EU27 is shown below:



Source: DG AGRI L3 calculations based on EU FADN, the AIDS7K model and AGLINK.

In the EU-27, depending on the option, the greening would result in a decrease in the average income ranging between -3.2% and -1.4%. It is interesting to note that, with in contrast with option 2 where the increased costs of the more ambitious crop diversification measure result in a further decrease in farm income, the more ambitious set aside requirement under option 3 has a positive effect on income. The higher rate of set-aside results indeed in a higher increase in market margin (in particular for field crops, such as cereals and rice) which offsets the cost for the greening.

As with costs, the impact on income per worker⁹ varies significantly across Member States, regions and farming systems. More specifically, by Member State:

⁹ The income per worker is measured with the Farm Net Value Added per Annual Work Unit (FNVA/AWU).

	FNVA/AWU (€/AWU)	FNVA/AWU - comparison with the Basis in 2020				
	MFF € per AWU	MFF DP distribution	MFF DP distribution	MFF DP distribution	MFF DP distribution	Min 90% and obj. crit.
	Basis	1	2	3	4	5
	-	30% DP, 70% diver, 5% set-as, 70% GC, PP, OF	30% DP, 50% diver, 5% set-as, 70% GC, PP, OF	30% DP, 70% diver, 10% set-as, 70% GC, PP, OF	25% DP, 70% diver, 5% set-as, 70% GC, PP, OF	30% DP, 70% diver, 5% set-as, 70% GC, PP, OF
Belgium	61 583	-5.1%	-5.9%	-5.7%	-5.1%	-7.2%
Bulgaria	9 470	-2.8%	-4.0%	-1.4%	-2.8%	-1.8%
Cyprus	15 064	-4.3%	-5.7%	-8.4%	-4.3%	-7.1%
Czech Republic	23 372	-4.5%	-4.2%	1.0%	-4.5%	-4.5%
Denmark	71 177	-3.1%	-4.3%	-4.9%	-3.1%	-6.2%
Germany	44 364	-4.8%	-5.9%	-3.5%	-4.8%	-6.2%
Greece	15 413	-1.0%	-1.3%	-0.7%	-1.0%	-4.0%
Spain	29 192	-1.8%	-2.0%	-0.3%	-1.8%	-1.6%
Estonia	24 949	-3.2%	-3.1%	1.0%	-3.2%	19.3%
France	38 466	-2.9%	-2.9%	0.1%	-2.9%	-4.0%
Hungary	27 795	-2.6%	-3.6%	1.1%	-2.6%	-2.6%
Ireland	27 237	-2.7%	-1.9%	0.8%	-2.7%	-2.7%
Italy	35 189	-0.5%	-0.6%	0.1%	-0.5%	-2.4%
Lithuania	19 345	-0.3%	-0.1%	4.4%	-0.3%	12.9%
Luxembourg	50 691	-5.6%	-5.3%	-3.2%	-5.6%	-6.0%
Latvia	14 786	-0.7%	-1.1%	2.2%	-0.7%	25.7%
Malta	31 121	-3.1%	-4.8%	-7.7%	-3.1%	-4.9%
Netherlands	67 857	-4.3%	-5.6%	-8.0%	-4.3%	-5.1%
Austria	32 384	-2.3%	-2.5%	-0.9%	-2.3%	-2.3%
Poland	12 991	-3.5%	-3.8%	-1.3%	-3.5%	-1.4%
Portugal	11 357	-3.6%	-4.8%	-3.6%	-3.6%	2.1%
Romania	4 882	-2.7%	-4.4%	0.0%	-2.7%	3.3%
Finland	28 456	-1.9%	-2.2%	0.9%	-1.9%	-1.3%
Sweden	43 959	-4.0%	-4.4%	-1.1%	-4.0%	-3.1%
Slovakia	20 563	-2.3%	-1.9%	3.2%	-2.3%	3.8%
Slovenia	7 727	-12.7%	-13.0%	-9.4%	-12.7%	-15.2%
United Kingdom	50 363	-4.8%	-5.1%	-2.9%	-4.8%	-3.3%
EU-27	23 717	-2.8%	-3.2%	-1.4%	-2.8%	-2.8%

Source: DG AGRI L3 calculations based on EU FADN, the AIDS7K model and AGLINK COSIMO.

Options 4 and 5 have the same definition of the greening measures as in option 1, so the result on income is the same for the EU-27. But, in Option 5, since the redistribution of direct payments between Member States is not identical in the two options, the impact on income by Member States differs in the two options.

The results by type of farming (table below) show the largest negative impacts for pig and poultry and milk farms due to the increase of fodder prices:

	FNVA/AWU (€/AWU)	FNVA/AWU - comparison with the Basis in 2020				
	MFF DP distribution	MFF DP distribution	MFF DP distribution	MFF DP distribution	MFF DP distribution	Min 90% and obj. crit.
	Basis	1	2	3	4	5
	-	30% DP, 70% diver, 5% set-as, 70% GC, PP, OF	30% DP, 50% diver, 5% set-as, 70% GC, PP, OF	30% DP, 70% diver, 10% set-as, 70% GC, PP, OF	25% DP, 70% diver, 5% set-as, 70% GC, PP, OF	30% DP, 70% diver, 5% set-as, 70% GC, PP, OF
Fieldcrops	24 404	-1.4%	-1.9%	4.0%	-1.4%	-1.2%
Horticulture	36 293	-0.8%	-1.3%	-2.0%	-0.8%	-0.8%
Wine	35 023	-0.2%	-0.1%	0.4%	-0.2%	-0.4%
Other permanent crops	20 896	-0.6%	-0.6%	-0.5%	-0.6%	-1.0%
Milk	29 141	-5.3%	-5.6%	-5.7%	-5.3%	-5.3%
Other grazing livestock	22 771	-3.9%	-3.4%	-1.4%	-3.7%	-4.2%
Granivores	23 210	-10.1%	-15.2%	-25.4%	-10.1%	-10.2%
Mixed	14 789	-5.6%	-6.1%	-3.7%	-5.6%	-5.0%
Total	23 717	-2.8%	-3.2%	-1.4%	-2.8%	-2.8%

Source: DG AGRI L3 calculations based on EU FADN, the AIDS7K model and AGLINK COSIMO.

4. GREENING OF THE CAP AS A WHOLE

4.1. Further greening of the CAP

In addition to the greening component of direct payments, improvements on existing instruments are also envisaged. Moreover, the setting up of a European Innovation Partnership (EIP) on "Agricultural Productivity and Sustainability" is currently under consideration.

4.1.1. Further greening of Pillar I: cross compliance

In addition to the streamlining of cross compliance and any adjustments taking into account the possible future greening component of direct payments, it is envisaged to strengthen the role of cross compliance for the environment and climate change by:

- reinforcing climate action in the GAEC framework, including a better protection of valuable grassland, wetlands and carbon rich soils, and reinforcing measures aimed at maintaining the soil organic matter level;
- including the Water Framework Directive once the Directive is implemented and the relevant requirements are operational at farmer level.

See **Annex 2e** for more details on cross compliance.

4.1.2. Further greening of Pillar II

Rural development policy supports the provision of a wide range of environmental public goods and will no doubt continue to do so in the future CAP. The relevant measures currently include not only agri-environment payments but also payments related to Natura 2000 areas, the Water Framework Directive, Natural Handicap Areas, forests and environmental investments. Also measures that support training and the diffusion of knowledge and information, as well as support to the setting-up and use of advisory services play an important role in improving knowledge of farmers and foresters on environmental matters and in the uptake of more environment-friendly management practices.

The agri-environment measure is especially important. Because of this, it is currently the only measure that all Member States/regions must include in their rural development programmes (RDPs). The measure functions by supporting voluntary commitments (beyond a baseline of legal obligations) undertaken for a period of five years or longer by farmers and other land managers. Payments are based on costs incurred and income foregone, with the possibility of paying for transaction costs in addition. It is widely used, inter alia, to support and promote organic farming throughout the EU.

Various ways of strengthening the environmental benefits delivered by rural development policy in the future are under consideration. Apart from individual adjustments to measures, it will be especially important to do more to encourage co-operative environmental action between farmers and other land managers (given the importance of ensuring connectivity of certain environmental measures and an ecosystem based approach to environmental protection), as well as to better link environmental payments to training and the use of advisory services.

In addition, forestry measures can be reinforced to deliver more in terms of protection of water, soils, biodiversity and carbon stocks.

Under the Integration scenario in particular, it is envisaged to better align rural development policy with the Europe 2020 strategy through priorities and targets in RDPs.¹⁰ Thus, the sustainable growth objective, and in particular the resource efficiency flagship initiative and the associated climate and biodiversity targets at EU levels should translate into effective operational targets set in RDPs and monitored by means of an improved CMEF. In addition, the focus on innovation should produce a better dissemination of innovative practices with a view to improving resource efficiency.

4.2. Impact of the alternative policy options

The impact on the environment and climate change of the different scenarios needs to be assessed by looking at all policy instruments working together. In fact, direct payments in combination with cross compliance currently contribute to the supply of certain basic environmental public goods that are then complemented by the more targeted measures of Pillar II delivering public goods in particular with respect to environment and climate change. With respect to the greening component in particular, the impact will to a large extent depend on how the component is designed as discussed above. But as is already the case today, and even more with the introduction of the greening component of direct payments in the future, the impact on the environment is not simply a question of transferring funds from the 1st to Pillar II.

4.2.1. Adjustment scenario

In addition to the considerable environmental impact from the redistribution of direct payments in this scenario that would favor permanent grassland (see Annex 3 on direct payments), the strengthening of cross compliance and the moderate increase of the available funds in Pillar II for new challenges would positively benefit environmental conditions, though this is unlikely to constitute a sufficient response to the serious environmental and climate change challenges facing the EU.

For example, as regards biodiversity, after the experience of missing the 2010 target, it remains doubtful that this scenario would be sufficient to ensure the achievement of the EU 2020 headline target of halting the loss of biodiversity and the degradation of ecosystem services in the EU by 2020, and restoring them in so far as feasible. This target calls for the maintenance of a sustainable agriculture with a CAP that can cover an extensive area with biodiversity-related measures.

4.2.2. Integration scenario

Compared to the adjustment scenario the integration scenario places considerably greater demands on the agricultural sector to contribute to the provision of environmental public goods.

At the same time, the strengthening of cross compliance and the reinforced strategic approach for rural development should optimize the use of resources for the Europe 2020

¹⁰ See Annual Growth Survey, Annex 1: Progress Report on Europe 2020, COM (2011) 11 final, that includes provisional national targets set by Member States in their draft National Reform Programmes.

priorities. Even if the rural development budget stays the same, the shift of some agri-environmental actions to Pillar I should free up some funds that might now be used for more targeted and more ambitious agri-environment measures, thus producing a further reinforcement of the environmental outcome of the policy.

If the right balance is struck, including in terms of the design of the greening component, there is considerable potential to improve resource efficiency that is a win-win situation for both farmers and the environment. This would probably be the only way to address on a sufficient scale the critical situation on climate, biodiversity and in many cases also water. With respect to biodiversity, in the integration scenario the CAP is best shaped to contribute to achieving the 2020 biodiversity target and is in line with the actions called for in the biodiversity strategy, with the greening component of Pillar I as a major feature.

4.2.3. *Refocus scenario*

The doubling of funds for rural development under this scenario and the clear focus on measures for the improvement of the environment and climate change actions should result in significant positive impacts on these aspects.

However, the fact that direct payments under Pillar I are phased out could severely compromise such an outcome. Without basic income support, the less competitive farmers who very often manage marginal land and land in remote areas in an extensive manner, thereby helping to maintain areas of high natural value, may cease their agriculture activity because they no longer make a sustainable income; moreover, GAEC that are part of the baseline for agri-environment measures no longer apply to land that does not receive direct payments. On the other hand, agriculture activity may be concentrated and intensified in the most competitive areas. (see below relevant extracts from Scenar 2020). In particular as regards biodiversity, this scenario would seriously undermine the achievement of the recently adopted EU biodiversity strategy to 2020.

Extracts from SCENAR 2020 - II

The role of farming to maintain landscape quality and biodiversity (associated with both Natura 2000 and HNV areas) underlines the potential risk associated with land abandonment, which is apparent to different degrees in the three scenarios elaborated in the macroeconomic part of Scenar 2020-II. This possibility is put into perspective by the type of subsequent regional analysis performed, and within Scenar 2020-II an attempt has been made to identify the regions particularly characterised by those types of land use that might indicate an ongoing process of land abandonment. To do this, the future shares of different farming types projected on the horizon of 2020 have been clustered to give a broad overview of agricultural performance (but only for the Reference scenario). The conditions representing a risk of land abandonment are found in a third of the EU regions. Most of the regions in this cluster are located in France, Greece, Italy, Portugal and Spain in the western and southern EU; in Bulgaria, Hungary, Poland and Romania in the eastern EU; and in Finland and Sweden in the northern EU. The reduction in agricultural utilised land projected in the macro-economic analysis with regard to the Liberalisation scenario, however, indicates the heightened risk of more widespread land abandonment within the EU as the agricultural economy becomes more liberalised. In any case in the Liberalisation scenario the Good Agricultural and Environmental Conditions (GAEC) do not apply anymore due to the cessation of direct payments in the absence of Pillar 1. Farmers will still have to fulfil requirements of the environmental legislation, without further consideration of good agricultural practices that are present in the GAEC and not in the existing legislation. In the less competitive regions, in particular, structural land abandonment would be accompanied by environmental decline. As a secondary effect of such structural change, targeted Pillar 2 measures aiming to enhance the environment would not find addressees and, therefore, could no longer contribute to sustaining extensive farming practices and thus securing the ecological values and benefits which these provide.

Note that the average decrease in the nitrogen surplus in the Liberalisation scenario at NUTS2 level hides local concentration of the production. Particularly under the Liberalisation, the narrower concentration of production which is expected would mean also greater localised water pollution risks. Moreover, the predicted increase in farm specialisation and concentration under Liberalisation would increase the negative externalities of agriculture, both by leading to increased concentrations of pollutants in more intensive areas, by losing the features of mixed and less intensive farms which are key to protecting farmland biodiversity, and by leading to the abandonment of farmland in remoter areas, with concomitant loss to biodiversity and landscape, and an increase in climate change gas release through increased soil erosion. These effects are, however, not taken into account in CAPRI.

In addition to this assessment of environmental conditions via the indicators included in the CAPRI model (nitrogen and phosphate surplus, ammonia and greenhouse gas emissions), the consequences of the decline in agricultural land use for the environment should be mentioned. In particular under the Liberalisation scenario, the steep increase in land abandonment risks seriously undermining the ecosystem services and biodiversity values of the respective landscapes. This should be a serious concern for future policy design.

4.3. HNV farming and the CAP post 2013

The concept of High Nature Value (HNV) farming was introduced into the Community Strategic Guidelines for Rural Development (2006/144/EC) and appeared among the Common Impact Indicators of the CMEF framework for Rural Development. Agricultural land management has created a rich landscape diversity, including a mosaic of woodlands, wetlands, and extensive tracts of an open countryside. The HNV farming concept underpins the causality between certain types of farming activity and certain environmental outcomes such as high levels of biodiversity and the presence of environmentally valuable habitats and species.

The EU estimate of the extent of HNV amounts to 30% of EU farmland. In the context of RD monitoring and evaluation Member States are developing approaches to identify and assess HNV farming in their territory.

The emphasis on HNV farming in the 2007-2013 has not at all lost its validity for the CAP post 2013. Within the EU 2020 Strategy, the Flagship Initiative on "Resource Efficient Europe" refers to biodiversity targets. The recent EU Biodiversity Strategy to 2020 includes specific targets to meet, which will place even more importance to supporting and maintaining HNV farming.

The reformed CAP towards 2020 should strike the right balance between contributing to ensuring the protection of the biodiversity values and agricultural habitats across the EU countryside, providing support to maintaining and enhancing HNV farming, and meeting its overall objectives.

The greening component of Pillar I foreseen in the integration scenario, and rural development measures should be developed in a complementary manner so as to foster HNV farming. Given that Pillar I greening requirements form part of the baseline for agri-environment measures, there is a certain risk that the latter are simply substituted by requirements established under Pillar I.

Whereas 'typical' low-intensity HNV farming should benefit under the integration scenario compared to the current baseline, this scenario will also support and promote the 'green infrastructure' and biodiversity in more profitable and intensive farming systems (e.g. ecological set-aside focus areas) thereby enhancing the 'nature value' in the more productive areas, ensuring better connectivity and buffering the areas of high nature value.

HNV in the Integration scenario

The environmental assets of HNV farming have emerged over centuries as free-of-charge side effects of profitable farming. Typically HNV farming practices are associated with low intensity grazing or mowing practices on semi-natural vegetation. Very often these types of farming are found on poorer land. Economic viability of this kind of systems is hampered by structural and natural handicaps, which brings the risk of either land abandonment or pressure to intensify production. However, HNV examples can be found also in intensively managed farming areas that sustain large populations of species important for nature conservation. In those areas the preservation of HNV features is often in strong competition with productive land use interests. Several elements of different CAP instruments as included in the integration scenario have the potential to support the maintenance of HNV farming and protection of biodiversity values:

Direct payments:

the redistribution of direct payments will improve the viability of HNV farming such as grazing livestock, grassland based farming and farming in LFA

the specific direct payment layer for LFA and Natura 2000 benefit HNV farming that is predominant in these delimited areas

HNV farming systems will comply with greening requirements of Pillar I at lower costs

the permanent grassland measure in the greening layer will ensure a better protection at farm level of the environmental value of grasslands

Cross compliance:

the GAEC framework will be adapted to enhance the protection of highly biodiverse pastures, wetlands and carbon rich soils

Rural Development:

improved targeting of measures through changes in the management system and programme design with integration of targets linked to EU priorities (including for biodiversity)

continuation of an extensive toolbox that can be tailored to specific needs of HNV farming in different regions of the EU, including by offering packages of measures.

specific support possibilities for farmers in LFA and in Natura 2000

possibility to support collaborative action and local bottom-up approaches stimulating local capacity to improve sustainability

support for training and innovation to boost sustainable land management

5. CONCLUSION

The CAP will need to increase its support to climate action and environmental public goods. One way to achieve this objective is to introduce simple measures of general application required for direct payments in Pillar I in combination with incentives for more targeted measures offered in rural development programs in Pillar II.

The analysis presented in this annex shows that there is a place for a greening component of direct payments within this two pillar structure, which would - together with enhanced cross compliance and a stronger rural development - considerably enhance the climate and environmental performance of the CAP throughout the EU territory.

To be effective, the design of such a greening component should strike the right balance between benefits for the climate, the environment, the long-term competitiveness and the efforts required by the farming sector, while staying simple as befits Pillar I and keeping administrative burden as low as possible.